

★ ABOVE THE FOG

• BULLETIN OF THE SAN FRANCISCO AMATEUR ASTRONOMERS •

Vol. 55, No. 10 – October 2007

October 17, 2007 – General Meeting
7:00 pm Doors Open . 7:30 pm Announcements . 8:00 pm Speaker



Joshua Bloom

Assistant Professor of Astronomy

UC Berkeley

GAMMA-RAY BURSTS NEWFOUND DIVERSITY IN NATURE'S BIGGEST BANGS

The brightest explosions in the universe, which were discovered accidentally by spy satellites in the 1960's will be the focus of this discussion. Called Gamma-Ray Bursts (GRBs), these explosions involve mind-boggling amounts of energy. New satellites in orbit around the Earth are allowing scientists to monitor these sudden bursts and to watch the afterglow that follows the explosions. I will recount the history of how astronomers have been learning about these bursts and their connections with the deaths of stars and the births of black holes.

New research is also revealing that some GRBs may result when two neutron stars collide. This work will be put in to the larger context of the burgeoning field of time-domain astronomy.

Bloom is currently an assistant professor of Astronomy at the University of California, Berkeley. He received a PhD in Astronomy and Astrophysics from Caltech in 2002 after receiving an M. Phil in Astronomy in 1997 from Cambridge University, England. He graduated from Harvard College magna cum laude with a double AB in Astronomy & Astrophysics and Physics. He is a Sloan Research Fellow and a recipient of the Hellman Faculty Award. The research conducted by Bloom's group is sponsored by the National Science Foundation, NASA, and the Department of Energy.

Bloom's research group focuses on understanding the origin of high-energy transients, particularly gamma-ray bursts, and using such transients as astrophysical probes. Bloom is principal investigator of the largest robotic infrared telescope dedicated to the study of astrophysical transients. He is also co-investigator of an NSF-sponsored project to build a cyberinfrastructure for time domain astronomy.

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CLUB TELESCOPES

The SFAA owns eight very fine, easy to use, loaner telescopes well-suited for deep sky, planets, and star parties. All scopes are available to any SFAA member. The loaner custodians for the majority of our fleet are Pete & Sarah Goldie. Please contact them at pg@lbin.com for details if you are interested in borrowing a scope or if you have items you can donate for the loaner program (eyepieces, star maps/books, red flashlights, collimator, etc.). Please contact the appropriate member indicated below if you are interested in borrowing one of the telescopes.



1) 6" f/10.3 Dobsonian/Ken Frank president@sfaa-astronomy.org

2) 8" f/7 Dobsonian/Pete Goldie

3) 8.5" f/6 Dobsonian/Pete Goldie

4) 10" f/8 Dobsonian/Pete Goldie

5) 114mm f/4 Newtonian StarBlast/Pete Goldie

6) 8" f/10 Celestron SCT/Annette Gabrielli/agabrielli-sfaa@sbcglobal.net

7) 8" f/10 Meade SCT/Stefanie Ulrey/treasurer@sfaa-astronomy.org

8) 9.5" f/5.6 Celestron Newtonian/Ken Frank/kennethfrank@planitarium.net

CLUB ASTRONOMY VIDEOS

The SFAA owns a series of astronomy videotapes featuring Alex Filippenko, a world-renowned professor of astronomy at UC Berkeley. The videotapes provide an introduction to astronomy and cover topics such as the Solar System, the lifecycles of stars, the nature of galaxies, and the birth of the Universe. The SFAA loans the tapes free to all members. If you are interested in viewing these tapes, you may check them out at any of the SFAA General Meetings. These tapes were kindly donated to the SFAA by Bert Katzung. For information on the course tapes themselves:



<http://www.teach12.com/ttc/assets/coursedescriptions/180.asp>

MEMBERSHIP DUES

Membership is billed for each upcoming year on June 30. Members may receive no more than one bulletin after the expiration of membership.

SFAA Website and Online Services



The SFAA web site at sfaa-astronomy.org is provided to our members and the general public for the sharing of club information and services. The web site contains links for club [star parties](#), [events](#), [newsletters](#), [lectures](#) and [meetings](#). If you wish to interact with other people who are

interested in astronomy, the SFAA web site offers public and members only [bulletin board forums](#). If you wish to remain up-to-date on club activities, then we encourage you to subscribe to one or both of our public [mailing lists](#), which will allow you to receive our newsletter and/or club announcements via email. Other useful and interesting information and services are available on the site such as [observing location reviews](#), member [astronomy photos](#), and [members only telescope loans](#). Information about SFAA's membership, organization and by-laws are available at the club's online public document [archive](#). If you need to contact a representative of the SFAA, then please visit our [contacts](#) page to help in finding the right person to answer your questions.

Above the Fog is the official bulletin of the San Francisco Amateur Astronomers. It is the forum in which club members may share their experiences, ideas, and observations. We encourage you to participate by submitting your articles, announcements, letters, photos and drawings. We would also like to hear from our new members. Tell us about yourself – what you have done in the past and what other clubs you have joined. **The deadline for the next issue is the 20th day of the month.** Send your articles to Editor@sfaa-astronomy.org.

FOCAL POINT

Hello SFAA members. Tempus fugit. The year is almost over. From hyperbole to grit grinding between two pieces of glass will again be heard in the halls of the Randall Museum this month as telescope making, cosmology and fall means the annual return of John Dobson to the Bay Area and San Francisco. Classes begin October 10th and 11th <http://www.randallmuseum.org/>

As the Sputnik turns 50 on October 4, a little beeping ball stunned the world, setting the stage for many more satellites to follow and marked the dawn of the space age. The Sputnik launch changed everything. As a technical achievement, Sputnik caught the world's attention. The Beat Generation was upon us and a local writer from the Chronicle Herb Caen coined the term Beatnik melding the two words. At Cafe Trieste, some individuals still feel the beat going on. Sputnik and its effects on science, education, and the way we view the world had changed forever. I remember as a kid sticking toothpicks in a styrofoam ball and making my very own Sputnik to hang in my room.

The rings of Uranus were discovered in 1977 by Jim Elliot from observing star occultation. In 1986 when the Voyager spacecraft flew by incredible images of the rings were recorded and looked very different than Saturn's rings. This happens every 42 years as it takes 84 years for Uranus to make one revolution around the Sun; now the ring system is edge on again. This was the basis of the timely talk given by keynote speaker Dr. Imke de Pater at the Reach for the Stars AANC-Con 2007 given at College of San Mateo last week. <http://www.aancstars2007.org/>

If you missed Dr. de Pater's talk, you can hear a similar rendition of parts of it on Science Magazine podcast of August 24th. http://podcasts.aaas.org/science_podcast/SciencePodcast_070824.mp3

Speaking of Reach for the Stars, I absolutely must thank a few key SFAA members: Michael Portuesi for his technical skill putting together the website and tackling Skype and VNC remote computer controls in helping make Dr. Pamela Gay's and Bad

Astronomer Phil Plait's images and audio work as well as they did, making the conference technically fresh and exciting. Everybody loved it and gave tons of positive feedback. Michael also was awarded the prestigious AANC Amateur Astronomer of the Year Award by the way which was well deserved for all his efforts over the years. John Dillon and Michael Kran also gave major help with organizing and facilitating the event. Jane Jones our Cassini speaker drove up from Southern California with Mojo, who volunteered to be our official photographer. Lucky for us.

Scenes from the conference can be viewed here: <http://photo.whiteoaks.com/2007-09-29-aanc/>

The Astronomical Society of the Pacific's survey and questionnaire is out by the Institute for Learning Innovation <https://vovici.com/wsb.dll/s/6ea8g2cb4e>

Please submit the survey by October 8th.

It's time to think about next year and where you want the club to go. You make the club what it is. Volunteering is the key. We've got more new members of SFAA, from beginners to advanced amateurs. Please welcome them all and introduce yourself to a new face at one of our club functions.

Vivian White told me about <http://www.lightsoutsf.org/index.html> on the 20th. Sounds very interesting. Check it out.

The Mars Hoax reappears...again. Should you be asked December 1st thru January 1st is best for viewing and closest December 18-19 at 15.9" not the 25.1" we had in August of '03.

See you at the last Mt. Tam public Star Party for this year on the 13th and again at the City Star Party at Lands End on the 20th where we will experience Lights Out SF between 8 and 9 and hopefully some better weather to come during our Indian Summer and the end of the year.

KEN FRANK
President

IMPORTANT DATES

SFAA GENERAL MEETINGS & LECTURES

NOVEMBER MEETING CANCELLED

Wednesdays - October 17, December 19,
7:00 p.m. Doors open. 7:30 p.m. Announcements. 8:00 p.m. Speaker
Randall Museum, 199 Museum Way (Near 14th Street and Roosevelt)

BOARD MEETINGS

Tuesdays - October 9, November 13, December 11
7:00-8:30 p.m.
Randall Museum, 199 Museum Way
(Near 14th Street and Roosevelt)

MT TAM STAR PARTIES – SPECIAL USE PERMIT – MEMBERS ONLY

SATURDAYS -- October 13, 6:29 p.m. – Gatekeeper **VOLUNTEER NEEDED**
November 10, 6:39 p.m. – Gatekeeper **VOLUNTEER NEEDED**
December 8, 4:44 p.m. – Gatekeeper **VOLUNTEER NEEDED**

CITY STAR PARTIES - Telescope Clinic one hour before sunset

VOLUNTEERS ARE ALWAYS NEEDED

Saturday, October 20, 6:19 p.m. at Land's End (Point Lobos)
Saturday, November 17, 4:51 p.m. at Land's End (Point Lobos)
Saturday, December 15, 4:46 p.m. at Randall Museum

Weather may cancel the City Star Party. Call the SFAA Hotline at (415) 289-6636 AFTER 4 PM to learn the status of the event and the location. If the hotline announces the Star Party is cancelled, the Telescope Clinic and Lecture are cancelled as well. However, if the Hotline does not cancel the Star Party, be assured that the Lecture will proceed as scheduled even given less-than-perfect telescope conditions.

Please note that while City Star Parties WILL ALWAYS be held on Saturdays, some will be closer to the last quarter phase of the moon, while others will be close to first quarter. This is so we can work around dates for Mt. Tam public star parties as well as our members-only events on Mt. Tam.

Map and directions – Land's End (Pt. Lobos) <http://www.sfaa-astronomy.org/clubarchive/directions-pointlobos.php>



Join us for the final
Mt Tam Astronomy Program
of 2007

MT. TAM ASTRONOMY PROGRAMS
MT. TAM MOUNTAIN THEATER
MT. TAMALPAIS

OCTOBER 13 – 7:30 P.M.

DR. STEVE STAHLER
UC BERKELEY

HOW STARS ARE MADE

On a clear night, the sky is filled with countless stars. These objects must be the natural outcome of processes that occur all the time, throughout our Galaxy and others. Indeed, images taken with radio and infrared telescopes show us new stars forming relatively nearby. The progenitor objects are large clouds permeating interstellar space. These clouds undergo gravitational collapse to form primitive stars, which then evolve to become mature objects like our own Sun. A large body of research, mostly undertaken within the past few decades, has led to a good understanding of the basic evolutionary process. Nevertheless, deep mysteries remain in this active and exciting field.

The speaker Dr. Steven Stahler is an astrophysicist at U. C. Berkeley. Raised in Maryland, he attended graduate school at Berkeley in physics. He was a professor at MIT before returning to the Bay Area in 1992. His research centers on the problem of star formation, and he recently coauthored the first comprehensive textbook in the field ("The Formation of Stars," Stahler & Palla, Wiley-VCH, 2004).

Trained as a theoretical physicist, Steve especially delights in the esthetic aspect of his research, which he tries to convey in his numerous public talks.

Viewing through telescopes with the San Francisco Amateurs following the talk, weather permitting.

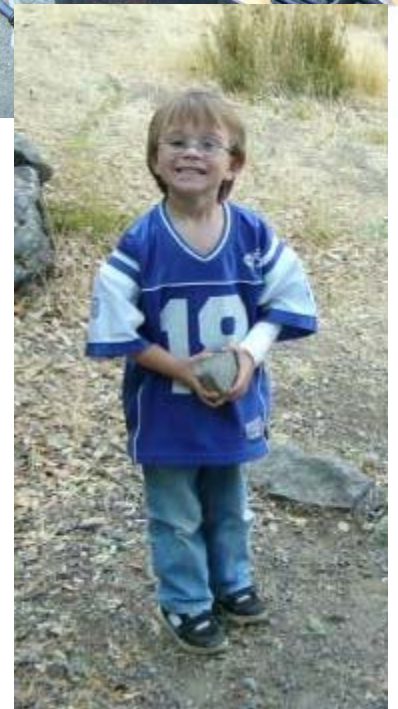
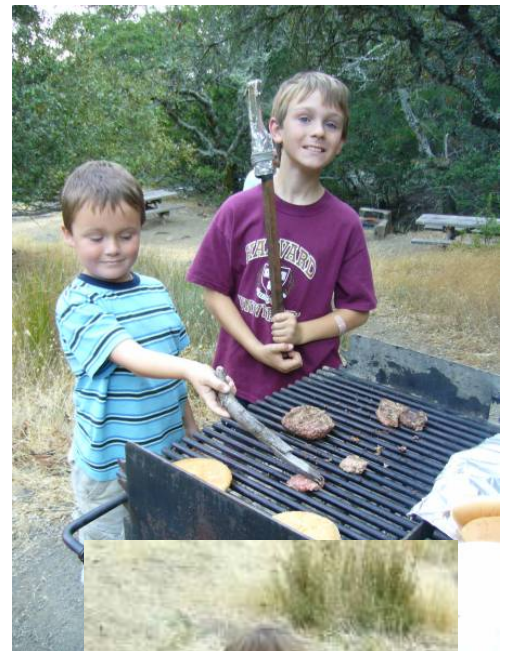
Dress warmly, bring a flashlight and car pool if possible. Thanks for sharing this information with a friend. See you on The Mountain! (Hotline if the weather is questionable: 415-455-5370, updated if there is a change, after 3:00pm on program date.)

Check out our website: <http://www.mttam.net>

Thank you for your interest in the Mt Tam Astronomy Programs. See you on the Mountain!

SEPTEMBER 8, 2007 - SFAA ANNUAL BOOTJACK STAR-B-Q

Below are some photos of the 2007 picnic before the sun went down. The marine layer rolled in blocking city lights.
More photos at planitarium dot net/sfaa/jorgepix and <http://www.planitarium dot net/sfaa/07starbq/pix>





AANC-CON Sept. 29 2007

Jane Houston Jones



Yesterdays's AANC conference at college of San Mateo was fabulous!

There were several of you there so I

thought I'd post the pictures to the SF Events list. I think Mojo and I made it to almost all of the activities. <http://aancstars2007.org/events.shtml>

Once it was dark, the CSM Observatory opened , after a great Planetarium show called Black Holes.

In the daytime there were talks, planetarium shows, family activities, solar observing and telescope making demonstrations, and even a band called Dark Matter singing and playing! Everyone hung around for the raffle - lots of wonderful donated items - from telescopes to cameras to books to posters and more.

Dr. Peter Jenniskens had the Aurigid Meteor Mission covered at the SETI table. Complete with meteorites, a Mission photo poster display, a flux measurement camera and meteor videotape running all afternoon - the same camera and videotape I used and saw on the Aurigid Mission flight less than a month ago.

We arrived at about 10:00 a.m. and left about 11:00 p.m. - had a great time seeing all our Northern California pals! Lots of work to put these conferences on - College of San Mateo, the San Mateo County Astronomical Society, the AANC and KCSM's Jazz Under the Stars , and the vendors <http://aancstars2007.org/vendors.shtml> for a great day and night!

Here are the pictures: <http://photo.whiteoaks.com/2007-09-29-aanc/>

Jane Houston Jones

Senior Outreach Specialist, Cassini Program

JPL - 4800 Oak Grove Drive, MS 230-205

Pasadena, CA 91109 818-393-6435

jane.h.jones@jpl.nasa.gov

Cassini SOC <http://soc.jpl.nasa.gov/index.cfm>

What's Up? <http://education.jpl.nasa.gov/amateurastronomy/index.html>



Group Photo



Ken Frank



**Michael Portuesi
accepts his AANC
award from Walt
Heiges**



Nice view of the planetarium and courtyard from the third floor.



Vivian works with kids to make their own solar systems



Darryl and his adoring students



**Bing, Alan,
Mohsen, and Jane
Houston Jones**



(MANY) MORE PHOTOS AT
<http://photo.whiteoaks.com/2007-09-29-aanc/>



ASTRONOMY LITERARY CONTEST COMING SOON !!!

Time to sharpen your pencils/boot up your computer and get those composition juices flowing! If you have an interesting astronomy-related original short story to share, now is the time to begin writing. Submissions may be fact or fiction, humor or opinion. You may have a favorite story about an observing experience, a trip, or about people who have crossed your astronomical path in one memorable way or another. Share the stories of your astronomy observing and/or travel experiences, enable us to appreciate them with you and enhance our own appreciation of the amazing and endless interest of astronomy. Prizes for first, second and third place winners will be awarded at the December Member's Night meeting. Watch the SFAA web site and the newsletter for forthcoming details to submit your entry!



ASTROPHOTOGRAPHY CONTEST COMING SOON !!!

Photos entries will be due prior to December 20th.



★ ★ ★ ★ ★ ★ ★ ★ ★ ★

See what you can do on a SFAA public viewing night from Mt. Tam at Rock Springs?? This photo was taken at an SFAA Mount Tam public viewing. Incredible!

Taken by SFAA Member Jared Willson on August 18
The western end of the Veil Nebula known as NGC 6960 but less formally as the Witch's Broom Nebula

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

TELESCOPE MAKING WITH JOHN DOBSON THIS FALL

From Michael Portuesi

Learn to build your own telescope, or about the Universe and our beginnings, at John Dobson's classes taught this fall in San Francisco.

To enroll, and for more information, visit the Randall Museum website (<http://www.randallmuseum.org>).

Observational Cosmology with John Dobson

Randall Museum (<http://www.randallmuseum.org>)

Wednesday 7 - 9 pm

October 10 - December 12

Course #2553

9 meetings

Ages 8 & up, under 12 with an adult

\$50/member, \$55/non-member

No class on November 22

Explore Dobson's unique perspective on the classic cosmological questions of time and space, matter and energy, and the evolution of the Universe.

Telescope Making Classes with John Dobson

Dobsonian Telescope Making

Thursday 7 - 9 pm

October 11 - December 13

Course #2554

9 meetings

Ages 8 & up, under 16 w/an adult

\$105/member, \$110/non-member

No class on November 21

Materials fee: Approx. \$300, paid to the instructor

John Dobson is the designer of the revolutionary "Dobsonian" telescope that made big, affordable, user-friendly telescopes available to amateur astronomers around the world.

In the telescope making course, John Dobson will teach his step-by-step method for grinding and polishing the mirror and assembling a complete telescope. Emphasis is placed on simple construction techniques, to help ensure success.

Preregistration is required with the Randall Museum. For more details, check the Randall Museum's website (<http://www.randallmuseum.org>).

SHARING THE UNIVERSE

Amateur Astronomy Web Survey - Must be completed by October 8th

***This from Marni Berendsen and our own Vivian White of the Astronomical Society of the Pacific.
Please fill out their survey and share with our club members who may not have a computer.
It may very well help all the clubs in Northern California understand how to be a better,
more effective amateur astronomy organization.***

Ken Frank, President, SFAA



Hello astronomy enthusiast,

Welcome to the Sharing the Universe project. Through funding from the National Science Foundation, the Astronomical Society of the Pacific (ASP) and the Institute for Learning Innovation (ILI) are conducting a national study to better understand the amateur astronomy community and the activities and mechanisms that promote astronomy education to the public.

We would like to invite all amateur astronomers to share their experiences and perspectives on club membership, astronomy activities, and engaging the public in astronomy learning. Your thoughts are very important to us, and we hope you will take the time to share them through this survey. Also, we encourage you to pass this on to other people who may be interested in participating.

The survey will take approximately 15 minutes to complete. All of your responses will remain confidential. Please submit the survey by Monday, October 8, 2007. [Note that you may receive this survey from multiple sources, such as list-servs, bulletin boards, etc. Please take the survey only once.]

By completing this survey, you are eligible to enter into a drawing for one of five \$50 gift certificates to Sky and Telescope's online store*.

To begin the survey click below or copy and paste the following address into your browser:
<https://vovici.com/wsb.dll/s/6ea8g2cb4e>

If you have any questions or concerns, please email us at: STU at astrosociety.org

For more information about the Sharing the Universe project visit: <http://www.astrosociety.org/stu/>

Thank you very much for your participation!

Marni Berendsen and Vivian White
Astronomical Society of the Pacific Night Sky Network Administrators

For information on this NASA resource for astronomy clubs working with the public, go to:
<http://nightsky.jpl.nasa.gov>

*Non-U.S. residents will receive \$50 Visa gift cards instead of gift certificates. Winners will be announced on October 31, 2007 on the Sharing the Universe website. They will also be contacted directly by ASP.

Sharing the Universe is a collaboration between the Astronomical Society of the Pacific (ASP) and the Institute for Learning Innovation (ILI), with major support from the Informal Education Division of the National Science Foundation under award number 0638873.

2007-2008 MEMBERSHIP DUES

SFAA membership now comes due in June. Before now, dues were payable in the month a member first joined. Last year, the SFAA board voted to make everyone's dues payable at the same time - in June of each year. This was done for two reasons: 1) to save a great deal of work for our volunteer Treasurer, present and future, and, 2) for the convenience of members - it's easier to remember! In the past, many members forgot their due date and their membership unintentionally lapsed.

During this first year of transition: If your present membership runs past June 2007, just pay a prorated fee to extend your membership to June of 2008. Simply deduct 1/12 from this year's dues for each month already paid. For example, if you last paid your membership in September of 2006, you have a credit of three more months. Subtract 3/12 (1/4) from your annual fee and just pay that amount. We trust your math. Next year, and every year thereafter, everyone will pay only in June. Easy!

We realize this conversion process may be a bit confusing and more work for some. But this is a one-time transition and it will lessen the work and confusion for all the years to come!

N.B. for those of you who have a club discounted *Sky and Telescope* magazine subscription, you will need to renew your subscription separately. The magazine will send you a renewal notice. In the past, you had to send that renewal notice with payment to the SFAA; now you can mail your *Sky and Telescope* subscription renewal payment directly to *Sky and Telescope*. **Note: Not renewing your club membership on time may mean your magazine subscription(s) will also terminate.**

Thanks for bearing with us during this transition process -- it'll all seem worth it next year! Just complete the membership form on the last page of the newsletter and submit with your renewal check to:

San Francisco Amateur Astronomers
P.O. Box 15097
San Francisco, CA 94108

YEARLY RATES FOR MEMBERSHIP

\$10 – Youth (under 18) Student Membership	\$25 – Individual Membership
\$30 – Family or Foreign Membership	\$40 – Institutional Membership
\$75 – Supporting Membership	

MEMBER BENEFITS INCLUDE

- Subscribing to our Announcements mailing list to receive newsletter, activity and event announcements.
- Interaction with world class speakers as they present cutting edge astronomical research
- Discounts on Sky & Telescope and Astronomy magazines*
- Discounts on equipment and accessories at local telescope retailers
- Annual club Astrophotography, Literary & Art Awards
- Social events, such as our annual picnic and our awards dinner
- Club telescopes – use one of the club's loaner scopes on a month-to-month basis
- Yosemite Star Party – held at Glacier Point exclusively for SFAA members
- Access to events and resources in Northern California and beyond
- Field trips – to observatories and other locations of scientific interest, such as Mt. Wilson Observatory in Pasadena, Chabot Space and Science Center, Fremont Peak, and the Stanford Linear Accelerator Center
- Extended observing hours at the Mount Tamalpais Astronomy Program
- Access to dark sites in Northern California

San Francisco Amateur Astronomers
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San Francisco, CA 94115



Information Hotline: (415) 289-6636

Web Page: www.sfaa-astronomy.org

Sharing the Wonders of the Universe

Has your membership expired? Your mailing label includes the month and year through which your membership is paid. If it is past, your membership has expired and this may be your last issue.

MEMBERSHIP APPLICATION

Members pay one half the amount listed below
Membership is billed for each upcoming year on June 30. Between January 1 and June 30, new
Membership Categories (Check one):
\$40 Institutional _____
\$10 Youth/Student _____
\$25 Individual _____
\$30 Family _____
\$75 Supporting _____

Information: Name(s) _____
Address _____
City _____
State _____
Home Phone _____
E-Mail _____
Zip _____

You can choose E-Mail (Recommended) or hard copy delivery for Above the Fog(Check one)
E-Mail _____
Hard Copy _____

Please make checks payable to San Francisco Amateur Astronomers and mail to:

San Francisco Amateur Astronomers
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San Francisco CA 94115